



**Rules and Regulations
for the Construction and
Classification of Ships
for the Carriage of
Liquefied Gases in Bulk,
July 2008**

Notice No. 2

Effective Date of Latest
Amendments:

See page 1

Issue date: November 2008

Lloyd's Register is an exempt charity under the UK Charities Act 1993

Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

RULES AND REGULATIONS FOR THE CONSTRUCTION AND CLASSIFICATION OF SHIPS FOR THE CARRIAGE OF LIQUEFIED GASES IN BULK, *July 2008*

Notice No. 2

This Notice contains amendments within the following Sections of the *Rules and Regulations for the Construction of Ships for the Carriage of Liquefied Gases in Bulk, July 2008*. The amendments are effective on the dates shown:

Chapter	Section	Effective date
LR I	2, 3, 4, 5	1 November 2008
3	LR 3.9	Corrigendum
4	4.10	Corrigenda
4	4.10	1 August 2008
6	6.3	1 August 2008

The *Rules and Regulations for the Construction and Classification of Ships for the Carriage of Liquefied Gases in Bulk, July 2008* are to be read in conjunction with this Notice No. 2. The status of the Rules is now:

Rules for Ships for Liquefied Gases	Effective date:	July 2008
Notice No. 1	Effective dates:	1 July 2008
Notice No. 2	Effective dates:	1 August 2008, 1 November 2008 & Corrigenda

All text which does not appear in the IGC Code is prefixed by 'LR' and thick vertical lines (see LR II.3)

Chapter LR I

General Regulations

Effective date 1 November 2008

Section 2

2.1 LR remains the sole classification society in the LR Group. LR is managed by a ~~corporate trustee Lloyd's Register Trustees Limited~~ **Board of Trustees** (hereinafter referred to as '~~LR's trustee~~ **the Board**').

~~LR's trustee~~ **The Board** has:

Appointed a Classification Committee and determined its powers and functions;
Appointed Technical Committees and determined their powers, functions and duties.

2.2 The LR Group has established National and Area Committees in the following:

Countries:	Areas:
Australia (via Lloyd's Register Asia)	Benelux (via Lloyd's Register EMEA)
Canada (via Lloyd's Register North America, Inc.)	Central America (via Lloyd's Register Central and South America Ltd)
China (via Lloyd's Register Asia)	Nordic Countries (via Lloyd's Register EMEA)
Egypt (via Lloyd's Register EMEA)	South Asia (via Lloyd's Register Asia)
Federal Republic of Germany (via Lloyd's Register EMEA)	Asian Shipowners (via Lloyd's Register Asia)
France (via Lloyd's Register EMEA)	Greece (via Lloyd's Register EMEA)
Italy (via Lloyd's Register EMEA)	
Japan (via Lloyd's Register Asia)	
New Zealand (via Lloyd's Register Asia)	
Poland (via Lloyd's Register (Polska) Sp zoo)	
Spain (via Lloyd's Register EMEA)	
United States of America (via Lloyd's Register North America, Inc.)	

Section 3

3.1 LR's Technical Committee is at present composed of:

<i>Ex officio members:</i>	TOTAL
• The Chairman of Lloyd's Register Holdings (LRH) LR	1
• The Chairman of the Classification Committee	1
<i>Members Nominated by:</i>	
• The General Committee of Trustees of LRH Board	18
• The Royal Institution of Naval Architects	2
• The Institution of Engineers and Shipbuilders in Scotland	2
• The Institute of Marine Engineers	2
• The Institution of Mechanical Engineers	2
• The Shipbuilders' and Shiprepairers' Association	2
• The Short Sea Group of the Chamber of Shipping	1
• The Society of Consulting Marine Engineers and Ship Surveyors	1
• The Institute of Materials	1
• The UK Steel Association	1
• The Honourable Company of Master Mariners	2
• The Institution of Electrical Engineers	1
• Federation of British Electrotechnical and Allied Manufacturers' Associations	1
• The Technical Committee	18
• The Technical Committee (from other countries)	18
• The Institute of Refrigeration	1
• International Oil Companies	2
• Association of European Shipbuilders and Shiprepairers	1
• Greek Shipping Co-operation Committee	1

79

3.3 All elections are subject to confirmation by ~~LR's trustee~~ the Board.

3.5 The term of office of the Chairman and of all members of the Technical Committee is five years. Members may serve one additional term of office with the approval of ~~LR's trustee~~ the Board. The term of the Chairman may be extended with the approval of ~~LR's trustee~~ the Board.

3.8 Any proposal of the Technical Committee involving any alteration in, or addition to, ~~Part 1, Chapter 1 of Rules for Classification is referred to LR's Trustee which has agreed to seek the comments of the Lloyd's Register Holding's General Committee of Trustees before adopting the proposal~~ subject to approval of the Board. All other proposals for additions to or alterations to the Rules for Classification will, following approval by the Technical Committee, be submitted to the Board for adoption.

■ Section 4

4.1 LR's Naval Ship Technical Committee (hereinafter referred to as 'the NSTC') is at present composed of up to 50 members and includes nominees of:

- The Royal Navy and the UK Ministry of Defence;
- The Defence Evaluation and Research Agency;
- UK Shipbuilders, Ship Repairers and Defence Industry;
- Overseas Governments and Governmental Agencies;
- Overseas Shipbuilders, Ship Repairers and Defence Industries;
- Various maritime bodies and institutions, nominated by the NSTC;
- The Chairman of ~~LRI~~ LR and Chairman of the Classification Committee who are *ex officio* members.

4.2 All elections are subject to confirmation by ~~LR's trustee~~ the Board.

4.4 The term of office of the NSTC Chairman and of all members of the NSTC is five years. Members may serve one additional term of office with the approval of ~~LR's trustee~~ the Board. The term of the Chairman may be extended with the approval of ~~LR's trustee~~ the Board.

4.8 Following approval by the NSTC, details of new Rules (or amendments) will be submitted to ~~LR's trustee which will seek comments from LRI's General Committee of Trustees before adopting any changes~~ the Board for adoption.

■ Section 5

5.1 LR has the power to adopt, and publish as deemed necessary, Rules relating to Classification and has (in relation thereto) provided the following:

- (a) Except in the case of a special directive by ~~LR's trustee~~ the Board, no new Regulation or alteration to any existing Regulation relating to classification or to class notations is to be applied to existing ships.
- (b) Except in the case of a special directive by ~~LR's trustee~~ the Board, or where changes necessitated by mandatory implementation of International Conventions, Codes or Unified Requirements adopted by the International Association of Classification Societies are concerned, no new Rule or alteration in any existing Rule is to be applied compulsorily after the date on which the contract between the ship builder and shipowner for construction of the ship has been signed, nor within six months of its adoption. The date of 'contract for construction' of a ship is the date on which the contract to build the ship is signed between the prospective shipowner and the ship builder. This date and the construction number (i.e. hull numbers) of all the vessels included in the contract are to be declared by the party applying for the assignment of class to a newbuilding. The date of 'contract for construction' of a series of sister ships, including specified optional ships for which the option is ultimately exercised, is the date on which the contract to build the series is signed between the prospective shipowner and the ship builder. In this section a 'series of sister ships' is a series of ships built to the same approved plans for classification purposes, under a single contract for construction. The optional ships will be considered part of the same series of sister ships if the option is exercised not later than 1 year after the contract to build the series was signed. If a contract for construction is later amended to include additional ships or additional options, the date of 'contract for construction' for such ships is the date on which the amendment to the contract is signed between the prospective shipowner and the ship builder. The amendment to the contract is to be considered as a 'new contract'. If a contract for construction is amended to change the ship type, the date of 'contract for construction' of this modified vessel, or vessels, is the date on which the revised contract or new contract is signed between the Owner, or Owners, and the shipbuilder. Where it is desired to use existing approved ship or machinery plans for a new contract, written application is to be made to LR. Sister ships may have minor design alterations provided that such alterations do not affect matters related to classification.
- ~~(e) That it will, in all cases, consult with LRI's General Committee of Trustees before passing any Rule amendment.~~
- (c) All reports of survey are to be made by Surveyors authorised by members of the LR Group to survey and report (hereinafter referred to as 'the Surveyors') according to the form prescribed, and submitted for the consideration of the Classification Committee.

Chapters LR I, 3 & 4

- (d) Information contained in the reports of classification and statutory surveys will be made available to the relevant owner, National Administration, Port State Administration, P&I Club, hull underwriter and, if authorized in writing by that owner, to any other person or organization.
- (e) Notwithstanding the general duty of confidentiality owed by LR to its client in accordance with the LR Rules, LR clients hereby accept that, LR will participate in the IACS Early Warning System which requires each IACS member to provide its fellow IACS members and Associates with relevant technical information on serious hull structural and engineering systems failures, as defined in the IACS Early Warning System (but not including any drawings relating to the ship which may be the specific property of another party), to enable such useful information to be shared and utilised to facilitate the proper working of the IACS Early Warning System LR will provide its client with written details of such information upon sending the same to IACS Members and Associates.

Chapter 3 Ship Arrangements

CORRIGENDUM

LR 3.9 Ship structures

LR 3.9-13 Local scantling reduction factors are generally to be in accordance with Pt 3, Ch 4, ~~5.6~~ 5.7.

Chapter 4 Cargo Containment

CORRIGENDA

4.10 Construction and testing

LR 4.10-04 Workmanship is to be to the satisfaction of LR and, in the case of type C independent tanks, to the requirements of Pt 5, Ch 17, ~~9~~ in the Rules for Ships for Class 1 pressure vessels.

(Part only shown)

LR 4.10-06 Manufacture and workmanship are to satisfy the requirements of Pt 5, Ch 17, ~~9~~ in the Rules for Ships for Class 1 pressure vessels.

Effective date 1 August 2008

LR 4.10-07 Non-destructive testing is to meet the requirements of ~~Pt 5, Ch 17 in the Rules for Ships~~ Chapter 13 of the *Rules for the Manufacture, Testing and Certification of Materials* (hereinafter referred to as the Rules for Materials) for Class 1 pressure vessels.

Chapter 6

Materials of Construction

Effective date 1 August 2008

6.3 Welding and non-destructive testing

LR 6.3-01 Generally, impact tests from aluminium alloy weldments are not required. For austenitic stainless steel weldments, impact tests are not required from the heat affected zone. Unless otherwise specified below, all welded construction is to be in accordance with Chapter 13 of the Rules for Materials

LR 6.3-02 Unless otherwise specified in these Rules, welding procedure tests are to be performed in accordance with the requirements of Chapter 12 of the Rules for Materials. Generally, impact tests from aluminium weldments are not required. For austenitic stainless steel weldments, impact tests are not required from the heat affected zone.

LR 6.3-02 03 Welding consumables are to be approved by LR in accordance with Chapter 11 of the Rules for Materials.

LR 6.3-03 04 For butt welds, a procedure test will generally qualify a thickness range from 0,75 to 1,5 times the actual thickness used for the procedure tests. All butt weld procedure tests are to be either radiographed or ultrasonically tested prior to sectioning for the preparation of mechanical test specimens. Details of proposed fillet welding procedure tests are to be submitted for approval. These are to include macrosections, hardness surveys and fracturing welds at selected positions to demonstrate freedom from internal defects. Welding procedure tests are to be performed in accordance with the requirements of Chapter 12 of the Rules for Materials, except where indicated otherwise in these Rules. Mechanical tests for butt welds are to be in accordance with 6.3.3.2.

LR 6.3-04 05 Additionally, an all-weld metal tensile test is required from welding procedure tests for type C independent cargo tanks. For purposes of comparison, an additional set of three impact tests is to be taken with the notch in parent material remote from the weld. These additional tests are not required from austenitic stainless steel. A macrosection and hardness survey is required for all welding procedure tests. Generally, microsections are not required.

LR 6.3-05 06 Transverse weld tensile strength is not to be less than the specified minimum tensile strength for the appropriate parent materials. For alloys where the weld metal has a lower tensile strength than that of the parent metal and such an application has prior approval by LR, the transverse weld tensile strength should not be less than the specified design tensile strength. In all cases, the position of fracture is to be reported for information. For alloys where the weld metal has a lower tensile strength than that of the parent metal, and such an application has prior approval by LR, the transverse weld tensile strength is not to be less than the specified design tensile strength.

LR 6.3-06 07 For aluminium alloys the bend test required in 6.3.4.2 is to be carried out over a former of six times the thickness of the test pieces. For aluminium alloys, the bend test required in 6.3.4.2 is to be carried out over a former with D/t according to Ch 12, 4 of the Rules for Materials.

LR 6.3-07 08 Bend tests revealing small openings up to a maximum of 3 mm in any direction are acceptable.

LR 6.3-08 09 Additionally, where the design temperature is not lower than 0°C, unless otherwise agreed, a macrosection and hardness survey according to Ch 12, 2.6 of the Rules for Materials is to be carried out.

LR 6.3-09 10 Requirements for production tests from integral or membrane cargo tanks are to be agreed with LR prior to manufacture.

LR 6.3-11 Unless otherwise stated below, all welds are to be subject to non-destructive examination in accordance with the requirements of Chapter 13 of the Rules for Materials.

© Lloyd's Register, 2008
Published by Lloyd's Register
Registered office
71 Fenchurch Street, London, EC3M 4BS
United Kingdom